

macdonald **FARM** *journal*



★ *How to Plan a Kitchen*

★ *Cranberries for Thanksgiving*

October, 1964

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THE MACDONALD LASSIE

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OUR COVER: The main building of Macdonald College as seen from Maple Avenue gate. There's hardly a more pleasant month at Macdonald than October, with football games, the reunion weekend, Thanksgiving and the bright colours of a Canadian autumn.



INSIDE

OPERATION CLEANUP

IF SEVEN MAIDS with seven mops, swept it for half a year, do you suppose?" the walrus said, "that they could get it clear?" "I doubt it . . .", said the carpenter.

This saying brings to mind a statement issued by Quebec's Minister of Agriculture, the Hon. Alcide Courcy, announcing a farm beautification competition for Quebec's farmers with prize money worth \$115,000. The purpose, the Minister claimed, was to clean up our farms in order to show visitors to Expo '67 how neat and tidy we can be . . . if we try. (See Macdonald Farm Journal, Sept. 1964)

It appears that the Minister of Agriculture wants to jump on the bandwagon of success that's associated with Expo. The announcement of a clean-up program in preparation for Expo will certainly cement relations between the World's Fair and agriculture as well as giving the Minister some worthwhile publicity.

Rural Quebec certainly needs a clean-up . . . not just a boy-wash but a good scrubbing behind the ears. One wonders if the offering of such great prize money is enough to do the trick. In many communities, it is not enough to offer only money. There should be a better way of motivating people. In several communities, tidy farmsteads are taken for granted and the farmer who falls behind is regarded as the black sheep of the community. Yes, there are some places in rural Quebec that are truly a pleasure to visit. Unfortunately, they are few and far between.

Those farms most in need of a new lawn, a painted barn and some new fences are those with the least amount of income—every cent earned having to be used to stay in business.

Furthermore, rural beautification is something that shouldn't be limited to farmers. There is a need for strict building by-laws in rural areas to prevent the construction of so-called ski shacks and half completed summer cottages. There is an urgent need for definite zoning by-laws to prevent the used car heaps and scrap metal yards that have become a typical part of rural Quebec's landscape. Without these government controls on rural non-farm people, there is little use for a farmer to clean up his yard when next door he is forced to stare at a used car heap with the rusting fenders inching their way onto the highway. One must always remember that farmers aren't the only people who live in rural areas—any plan of rural beautification should involve everyone if it's going to be successful.

The basic idea of farm beautification is a good one. It has worked well in Prince Edward Island and in certain counties of Ontario. It is a good start but at this stage of the game, we really need to face the problems of living in rural Quebec right in the eye. What about the fact that 28% of Quebec's farmers have less than \$1200 income? What about the statement that 50% of Quebec's farmers have to move off their farms? What about the fact that the education of Quebec's young people is a generation behind that of other provinces? What about the fact that social services in most rural communities are only beginning to be heard of? It seems that there is so much to do, and so little time to do it in; but until we face the problems, then there is little need to try using a contest gimmick to pretty up our farms.

But it appears that there's going to be a beauty contest in rural Quebec, so we might as well make the best of it. There is a need for some guidelines as to what the judges of the contest have in mind, when it comes to farm beautification. There is a need for information—in two languages to assist those who might want to enter the contest.

It will be interesting to see, in 1967, what effect this farm beautification program has on rural Quebec. We wonder if any English-speaking farmers will win a prize. We hope so.

Mark Waldron



For ease in working, the heights of the counters should be approximately 34-36 inches. A pullout board which is lower than the counter is convenient for such a task as mixing. (Fig. 1.)

by **Carolyn M. Fraser**
School of Household Science

THE MODERN homemaker spends a large percentage of her working time in the kitchen. For this reason it should be both efficient and charming and planned so as to take the drudgery out of kitchen work.

There are four basic aims of a good kitchen:

- To save time and effort
- To reduce waste motions
- To lessen nervous tension and fatigue
- To help prevent accidents

Altogether these add up to a convenient, comfortable place to work.

One of the first essentials to consider in planning an efficient kitchen is the amount of space required for both food preparation and storage.

Three work areas

The kitchen is divided into three work areas and should be planned around these centers. The first area is the food storage and preparation center which is keyed to the refrigerator and requires ample work surface and cabinet space for the preparation and stor-

age of foods. The second center is the cleaning center which is keyed to the sink and dishwasher. This area should also contain ample work surface and cabinet space for the cleaning of vegetables etc., the washing of dishes and the storage of cleaning supplies. The third area is the cooking and serving center. This center is keyed to the range and should also be planned with sufficient work surface and cabinet space for serving foods easily and storing cooking equipment.

The amount of cabinet storage space will depend on the number of food items, utensils, and dishes to be stored and this will vary with individual families. For efficient storage, kitchen supplies should be assigned to the three work centers. This method of storage allows each article to be readily accessible at the point where it is first used.

Counter space needs

The amount of counter space is often determined by the base cabinet requirements and the functions of food preparation. The following are minimum amounts of counter space required for various functions:

- 15 inches beside the refrigerator for setting out articles taken from the refrigerator or setting down groceries to be put away.
- 36 inches at the right of the sink for stacking dishes and 30 inches at the left of the sink for draining and drying dishes. This 30 inches of counter space is not necessary if

there is a dishwasher unit.

- 24 inches beside or near the range for setting out serving dishes or dinner plates. This does not include the 15 or 18 inches of counter often provided by a standard sized range.
- 36 inches at some point in the assembly for mixing and food preparation.

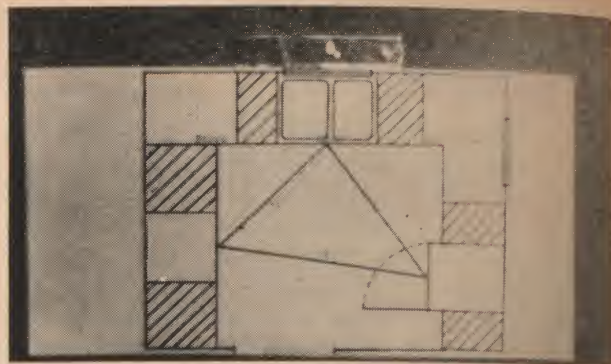
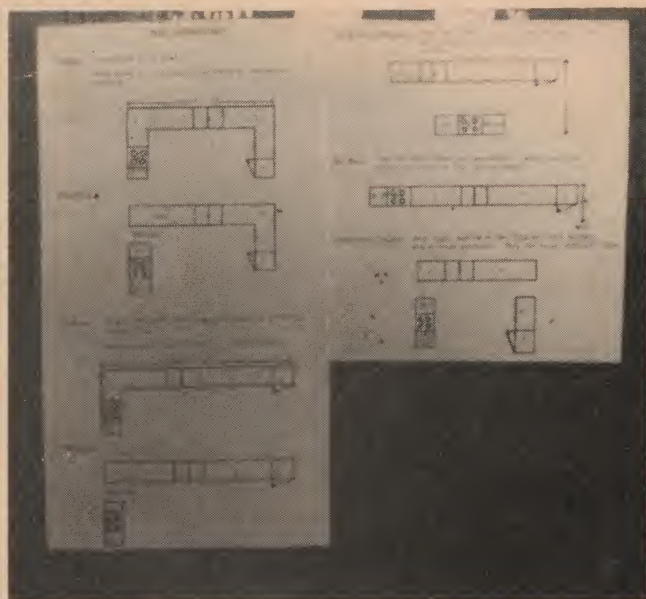
In a continuous assembly some of the counter space may be used for more than one of the functions mentioned above. However, this multiple use should never reduce the amount of counter to such a point that the necessary base cabinet requirements are cut.

For ease in working, the heights of the counters should be approximately 34-36 inches. Individual adjustments of heights for convenience can be made by having a pullout board which is 2-4 inches lower than the counter (see fig. 1) by having one work surface lower than the others or by having a moveable table with a lower surface.

Adequate space must be provided in front of cabinets and appliances for passageways and work area. The recommended minimum distance between cabinets or appliances opposite each other, is 4 feet. This distance is sufficient for two workers. The clearance between cabinets at right angles to each other but separated by a door or work area should be at least 3 feet to allow for the opening of the cabinet doors.

In planning the assembly, allowance must be made for the space occupied by appliances.

When determining space requirements, there are various special consid-



(Left) Seven basic kitchen designs. (Fig. 2.)

(Above) The work triangle illustrates the recommended maximum and minimum distances between major equipment in the kitchen for step-saving and for adequate cabinet and counter space. (Fig. 3.)

erations. Individual family preferences determine whether the kitchen will include such equipment as utility cabinets, a dishwasher, a freezer or space for eating, washing, sewing or other activities. Each of these requires a certain amount and type of space which should be planned at the same time as the kitchen in order to utilize the available space efficiently.

The location of cabinets and appliances depends largely upon the location of the work centers. The normal sequence of work centers is from right to left with the food storage and preparation center at the right, followed by the cleaning center and the cooking and serving center at the left. These centers may be taken out of sequence and reversed or they may be isolated. If a center is isolated it should be complete with storage cabinets and work surfaces.

Basic kitchen designs

There are seven basic designs for the arrangement of a kitchen. (see fig. 2).

The U shaped kitchen is considered by most authorities to be the ideal kitchen plan. With this arrangement the appliances and cabinets form a continuous line around three sides of the kitchen. It is compact and convenient with all equipment within easy reach. Also, since the doors probably would open at the end of the U, traffic would automatically be eliminated through the work area. The broken U is sometimes necessary when redesigning an older kitchen to avoid expensive structural changes in relocating or eliminating a door.

The L shaped kitchen is usually rated second in efficiency with this arrangement, two of the work centers form the long side of the L and the third center forms the short side. This

type of kitchen provides continuous work surfaces along two walls, leaving the other walls free for a dining unit, a washing unit or any other equipment desired.

The broken L, like the broken U is often used when replanning an older kitchen.

In the two wall or pullman type kitchen, two of the work centers fill one wall while the third center occupies the wall opposite. This type of kitchen can be quite efficient if through traffic can be routed around the kitchen and not through it.

A one wall kitchen is one in which the three work centers are arranged in a row all along one wall. This plan is far from ideal because it reduces the work surface beyond the point of efficiency. This type of kitchen is most often found in small apartments.

The kitchen can also be planned so that each work area is an individual center. With this arrangement each major appliance and its respective work surface and storage cabinets stand alone. This design is most frequently used when existing doors do not permit an unbroken plan.

The distances between appliances is usually determined by the counter and storage requirements. Too small a distance between appliances indicates that there is not enough counter space and too great a distance means that the proportion or the size of the room results in uneconomical use of space.

The recommended distances between appliances are:

- between the refrigerator and the sink 4 to 7 feet.
- between the sink and the range 4 to 6 feet.
- between the range and the refrigerator 4 to 9 feet.

The sum of these three distances should not exceed 22 feet.

The work triangle

If we were to join these appliances by straight lines we would get a triangle. This is called the work triangle and is one measure of the efficiency of a kitchen. (see fig. 3). Traffic through this triangle interferes with meal preparation and therefore should be avoided.

When remodelling an old kitchen the plan is often affected by certain fixed dimensions imposed by the plan or structure of the house. In this case the cabinets, counters and appliances must be arranged to make the best possible use of the space available.

If we are planning a new kitchen there are certain architectural features to keep in mind.

To be efficient and convenient the kitchen should be properly located in the house plan. It should connect directly with the dining and service areas and there should be easy access to the front entrance. The arrangement should be avoided that makes the kitchen the main thoroughfare, to the rest of the house. As mentioned previously, traffic should by-pass the working area of the kitchen.

The number of doors, their location and the direction of their swing will affect the efficiency of a kitchen arrangement. Most kitchens require only two doors — one leading to the dining area and one leading outdoors. In good plans a third door is seldom necessary. Unnecessary doors break up the assembly of equipment, waste valuable space and confuse the traffic pattern. The swing of the door should not con-

Continued on page 23



These cranberry beds are 120 feet wide. Boxes are placed along the dike to be filled by the harvester. (Photos courtesy Canadian Industries Limited)

Canadians eat four million pounds of cranberries with their Thanksgiving turkey. But very few of the cranberry growers are in Canada. Orville Johnston, Bala, Ontario, is one of them.

by Walker Riley

Cranberries for Thanksgiving

THE FOUR JOHNSTON children, Dianne, age 11; Janet, 9; Murray, 6; and Blake, 4; live on a farm. It is the heart of Ontario's holiday country, in that beautiful district of lakes and forest and rock 100 miles north of Toronto. In winter, they have skiing and skating at their back door, and in summer it is swimming; by bus, school is not far away.

But it is an unusual kind of farm. There are no cereal crops, no vegetables, no fruit trees. And there are no animals — only Major, the playful Alsatian who loves to carry stones and chase sticks. Their father often works in hipwader boots and sometimes, when the temperature drops, to freezing, he spends all night "out on the marsh".

For Orville Johnston is a cranberry grower, the only one in Ontario and one of the few in Canada. His product finds its way to the Thanksgiving dinner table and into an ever increasing variety of processed products.

It took courage and determination to start into an enterprise where others were failing. But Orville had worked on a marsh during his high school vacations. He saw mistakes he believed could be avoided. He knew that there were successful growers in Massachusetts and in Wisconsin and that cran-

berries grew naturally as far north as the tree line. He learned, too, that the entire Canadian production was less than one million pounds — not one quarter enough to satisfy the demand. And he was sure there was money to be made. Over the years, prices had been around 15 cents per pound; crops had been reported as high as 30,000 pounds, to the acre.

A farm of his own

So Orville set his sights on a cranberry farm of his own. He found and purchased a suitable marsh near Bala, Ontario. In the winters, he studied at Macdonald College to gain the basic knowledge he felt he must have. It was there, too, that he met June MacArthur, the girl that would share the future with him.

In the summers, he worked on his marsh. He had ditches dug, dams and dikes built, vegetation stripped from the surface, water control gates built. In the spring of 1953, his graduation year, he planted the first vines on the seven acres now prepared.

The following ten-year period is a story of frustration and encouragement, of crops lost to hurricanes and of chemical scares, of failure and success. But Orville feels he is over the hump now. He marketed a good crop last year; there is the promise of an-

other this fall. And his new marsh, 16 additional acres, will be ready for planting next spring.

On a cranberry bog, the year starts as soon as the winter's protective coat of ice has melted and drained away. There are ditches to be cleaned, water gates to be repaired, spraying for weeds, insects and disease; pruning, and hand weeding to be done.

Frost is a prime hazard; the plants must be protected from the appearance of the first bud in the spring to the last harvest in the fall. Orville has spent many a sleepless night watching the thermometer. But he has replaced the clumsy, slow method of flooding; he now uses a standard sprinkler irrigation system. Coupled with an electronic warning system, it gives instant protection against freezing. He may use the system 20 nights in a season, mostly, of course, in May and in October. But frosts may occur on a marsh any month of the year.

Pests and weed control

Like any crop, cranberries have their own insect pests. The yellow-headed fireworm attacks the foliage; fruit worms enter the berries; tipworms go for the buds. But Orville has a neat trick for application of an insecticide — he meters it into the irrigation system. Three treatments following blos-



(Above) Orville Johnston shows a good sample of cranberries. First crop is harvested three years after planting.

(Right) A self-propelled harvester strips the cranberries from the vines. The marsh is flooded just before picking. One machine can handle 15 acres in a season.



soming in July is usually sufficient.

Weed control is another matter; it is a problem which he has not yet beaten. There is no economical chemical which will take out the grass and woody plants without hurting the cranberries. So far, kerosene has been his standard treatment. Its application is critical; it must be made before growth starts in May when the temperature is less than 60° and when the sun is not shining. But a new chemical, Caseiron, does look promising in his trials.

Picking starts early in October. The bog is flooded to a depth of 8 inches to float the berries. A self-propelled harvester slashes through the water to rake the berries off the vines. It delivers them into flat boxes, 2 feet square. These are floated to the dikes to be picked up with a tractor.

Orville built his own drier around a standard 7½ H.P. crop-drying fan. Without artificial heat, it removes the surface moisture and the leaves. Then the berries go through a grading mill, and are packed ready for shipping in sugar bags.

New marketing methods

In the early days, Orville marketed his own berries locally, through chain stores, wherever he could, with varying degrees of success. But recently, he has been sending all his crop to St. Jean,

Quebec, for processing. There the Ocean Spray plant, a branch of the large U.S. cranberry co-operative, packs for distribution across Canada.

When Orville's new marsh is in production, it will give him a total of 25 acres, a unit area, he considers. Its development is being done very carefully; he has retained for an adviser one of the top U.S. growers.

A bog is a mass of undecomposed plant material many feet in depth filling an undrained pocket in the earth. When drained, it settles following the contour of the bottom. Therefore, Orville is taking great care laying out his new beds so that they will flood to a uniform depth. Each is 120 feet wide, with three parallel ditches, and contains four acres. The surface material is pushed into dikes which double as roadways.

These new beds will be ready for planting in the spring. Truck loads of vines from a high producing marsh in Wisconsin will be chopped, scattered, and pressed into the wet, black soil with the cleats of the tractor. The first real crop is expected in three years.

Popular varieties

Most cranberry varieties are selections from wild strains. Orville has

chosen Searle's Jumbo for his new planting. Early Black, McFarlane, and Late Howe are other popular varieties.

The cost of developing a bog is high — \$2,000 to \$3,000 per acre. Orville figures. Annual production costs may be 5 cents a pound with average yield. Profit depends directly on yield. "At 75 barrels per acre (that's 7,500 pounds), you are just breaking even. At 100 barrels, you are making a bit, and if you can consistently produce over 120 barrels, then you should be showing a real profit," he says.

What of the future? Orville thinks it looks very bright. Canadian consumption could take another 400 acres. The manager of the Ocean Spray plants reports sales of processed cranberries rising 10% every year. Charles Laroque, Quebec's only grower, feels that even without the present 10% protection of duty on imported whole berries, the Canadian growers could compete very well on price.

Orville Johnston, then, is a true pioneer. With quiet courage and a persistent determination, he has won through to success in a field with no one to show him the way. And what does he do with his spare time? He plays the piano in one of Muskoka's leading resorts.

BOOK REVIEWS

MUSHROOMS AND TOADSTOOLS IN COLOUR by Else and Hans Hvass, Blandford Press, London 1961.

Do you have mushrooms and toadstools growing in your pasture? Do you know which ones are good to eat?

Here is a delightful little book which is intended to help you, the amateur, identify the fungi you might find growing on your farm or in the nearby woods. There are 343 colour plates which give a good idea of the appearance of each. Following that we find a brief introduction giving a general description of the species of fungi, and then drawings showing the various types and parts of the fungus. The last 45 pages of the book consist of brief descriptions of each fungus in the colour plates, including where they grow and whether or not they are good to eat. For example, the Field Mushroom, a big whitish mushroom with pink gills, on a squatty stem ringed below the cap, grows commonly in pastures. It is edible and nicely flavoured — a real treat to find growing in your vicinity. However, we are warned in the foreword that it is not wise to eat a fungus until it has been identified for certain, by an expert if in doubt. It is also safer to cook all specimens before sampling them.

An index to both English and Latin names completes this brief, but efficient guide.

For the young botanist in your family who loves to explore the woods and fields, or for the cook who likes to spark up a supper dish or that special dinner with a "home-grown" treat, this little guide should prove very useful and interesting, and all for only about three dollars.

Reviewed by Miss Janet Finlayson

RENEGADE IN POWER: THE Diefenbaker Years by Peter C. Newman, Toronto/Montreal, McClelland and Stewart (c1963) \$7.50.

John George Diefenbaker became Canada's thirteenth Prime Minister June 21, 1957 with 111 Commons seats. In the elections of March 31, 1958 he won a majority of 208 Commons seats giving him more support than any other democratic government in the world. What then happened to the Conservative Government between 1958-1963? Mr. Newman spent these years as Ottawa Editor of "Macleans;" his "Backstage at Ottawa" was a most popular political column. In his book

he relies on his own observations and notes to write an assessment of Diefenbaker's character, his ability as Prime Minister and the people who surrounded him.

As a review of politics the book is fascinating, starting with Mr. C. D. Howe and the Trans-Canada Pipe Line debate through to Mr. Coyne and the Bank of Canada all the important political developments are discussed. There are also interesting biographical sketches of Howard Green, Alvin Hamilton, George Hees, Donald Fleming and "Davie" Fulton. However, the dominant figure throughout the book is Mr. Diefenbaker himself. Conservative propaganda emphasized not the party but Diefenbaker, the defendant of democracy. Canadians across the country came to know his opening phrase, "My fellow Canadians" and flocked to hear variations of his pledge "One Canada, with equality of opportunity for every citizen and equality for every Province from the Atlantic to the Pacific".

Once in power he began to lose his appeal and the respect of the people who were associated with him. Mr. Newman believes this was because he distrusted any advice given to him, prevaricated until his Cabinet gave a unanimous vote on all measures and lacked what Walter Lippman described as the essential attribute to leadership, "the ability to see what matters in the excitement of daily events."

The book is a most controversial one. Many people will not agree with Mr. Newman's interpretation of the facts, he himself states: — "I am all too aware that by catching history on the run in this matter, unavoidable omissions and premature judgments may have affected some of my judgments". However, for anyone who enjoys following politics and arguing over events still bright in memory, "Renegade in Power" offers interesting, clear and stimulating reading.

Reviewed by B. E. Little



New Soil Science Building

THE LECTURE ROOM holds over 300 students. There are new laboratory facilities, and special labs for 15 graduate students. There are also new offices and working space provided. This building is a valuable addition to the facilities at the college. During the summer this building was completed and its shiny new rooms are now ready for use.

The third floor provides a spacious new lecture theatre with all the new audio-visual aids and a built-in projection room. Adjacent to this lecture room are preparation rooms and rooms for storing materials.

The main floor provides space for offices, a reading room and a seminar room on one side of the hall. Across

the hall there is a large drafting room and a laboratory for advanced undergraduate study.

The basement of this building houses several smaller labs to be used mainly by graduate students and the staff. There is a drying unit which will be used for drying forage plants for evaluation. There is also a "controlled environment walk-in room" where the temperature, light and humidity can be artificially controlled. There is a workshop for making experimental apparatus and a special room for preparing radioactive materials for analysis.

Before moving to this new building, the Soil Science Department was located in the Chemistry Building.

— Galen Driver



Farmers themselves are not demanding enough of research.

In dairy farming we often hear more about total pounds of milk per cow — not enough about cost per pound. (Right)



CANADA'S LIVESTOCK INDUSTRY IN A TIME OF CHANGE

Condensation of a paper presented to The Canadian Society of Animal Production at the Agricultural Institute of Canada meeting in Fredericton, N.B.

by J. D. Johnson

Regional Supervisor,
C. B. C. Farm and Fisheries
Department, Halifax, N.S.

I'M SURE I WILL not startle you to suggest that Agriculture in Canada today is an industry of changes and there are many good reasons for change.

Technically you will quickly point out many examples of startling change,

but my purpose here is to discuss some of the practical aspects of the livestock industry which I feel are not changing, at least fast enough.

I would like to isolate what I consider to be one of our major practical problems and if I can do this with some degree of accuracy someone has said, "identification of the problem is 60% of the solution."

We have a generation of farmers who are mechanically minded and are essentially not livestock minded. I think their fathers were more so and I think successful livestock farmers in the future will have to be. Too many farmers haven't figured out yet that it is their animals that must pay for their joy of riding around on high powered tools of ease and greater production.

Insufficient emphasis is being placed on what I call animal ability. There is

no place in livestock farming today for a farmer who won't or can't dehorn, castrate, inoculate, cure lice, ringworm, foot rot or use a needle wisely. He must understand all the complexities of feeding and breeding. You will immediately say most farmers do, that this is basic, then I can only say why then are these things not being done.

Practical Problems

First of all I think we must recognize the fact that this is a country where we can't pasture cattle all year round.

Our techniques of storing that forage for use during the non pasture months have changed greatly but by and large the emphasis has been to speed up our harvest to do it easier and to accomplish more with less labor, and to take more advantage of favourable weather. Generally speaking we have applied these new harvesting techni-

ques to the same old growing techniques. When our livestock farmers start investing the same amount of time and money into the production of quality forage as they have already made in the harvesting of it, we will be getting a lot closer to knowing just how far we can go in utilizing forage to produce meat and milk.

Another point I'd like to make about forage is this, no farmer needs any convincing that forage in the form of pasture is his most profitable time of year. But what have farmers really done in extending the pasture season? Cows are often out both before grass and after the grass is all gone. What have we really accomplished in extending the pasture season with something for the cows to eat? We can all think of many crops that will do this for us but can we say farmers generally are doing a good job in this regard?

It's been so easy for a farmer to open a bag of balanced dairy ration that we've allowed it to cover up all our lack of progress toward a quality forage programme.

Milking

A milking machine is now almost as commonplace on a dairy farm as the barn door. If proper importance **had** been put on **instructions** as to how to properly milk a cow with a machine we may not be in the position we are now regarding mastitis. After contributing substantially to the financial welfare of drug companies to solve our mastitis problem we are now back to instructing farmers in the things they should have gotten along with their milking machine. Perhaps the time has not been lost, in the same way the money for drugs has, because these same farmers are certainly in a mood to listen now which they probably wouldn't have done before experiencing their mastitis problems.

There is another practical problem which I have felt has existed with our dairymen and that is stealing milk from calves to ship off the farm. As a consequence replacement dairy heifers are too small and not as many are being raised.

Fat

Whether we sell whole milk or cream we are paid on the basis of butterfat content. Yet everyone knows that most of the new dairy products which the

dairy industry is offering to the consumer today are made from the solids-non-fat portion of our milk. A quick test to more adequately assess the merchantable and nutritional value of milk is urgently needed.

Our fat problem in the beef segment of the livestock industry in Eastern Canada at least is that we don't have enough fat and our hogs are graded down because they are too fat.

We take great pride in producing a high percentage of Grade A hogs. We even give prizes and bonuses to farmers to have their hogs grade A. All this attention to grade when we know that some farmers who get their pigs off on less feed and at somewhat lower grades are making more money. This is not new, this was so prevalent twelve years ago this month when I started in livestock work promoting bacon litter competitions that farmers told me they could get good grades, if they tried, but they could also make more money if they didn't place all their emphasis on grade. What really is our objective; a high percent of Grade A's or dollars in the farmers' pocket?

Sheep

I have only one comment about sheep. Man's best friend "the dog" is one of the biggest assets to a sheepman in managing his flock. The dog is also the biggest single reason why people are getting out of the sheep business. The damage done by marauding dogs at night apparently just can't be controlled. It's ironic to have to conclude that the sheepman's best friend is also his worst enemy. Regardless of all the diseases we've had to plague the sheep industry, if the present trend continues some dog will write the last chapter, at least in Eastern Canada.

Credit

Aside from what is said about the availability of credit, livestock producers still have a problem with it. Perhaps it is best to acknowledge that their biggest problem is in paying it back.

Nevertheless, it is a long process to convince an unfamiliar banker (and many of them are) what a large amount of operating capital is required in livestock farming today. The young aggressive farmer trying to meet mort-

gage payments has difficulty both in obtaining large amounts of short and intermediate credit and in utilizing it to his best advantage. It boils down to the point that if a person starting out has enough down-payment and operating capital to farm properly then he is foolish to start. We must find a way to sort out and to more adequately assist those with farming ability, or in the case of livestock, those with animal ability.

Research

First, I know of farmers who are doing a good job farming. I also know of research institutions which are doing good research. However, I feel there is



Forage in the form of pasture is the farmer's most profitable time of the year.

One must be both mechanical-minded and live-stock minded.





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New equipment bought with a Farm Improvement Loan will both lighten your work load and increase your profits. Why not see your nearest B of M manager about a low-cost FIL for your farm?



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AD178

often a wide gap between them. Research is supposed to give answers, but so often one little piece of information is left out or one question unanswered in applying that research to its practical application. Farmers themselves are not demanding enough of research. Perhaps I could ask you — who decides what research is done — who can say it is being done — Does the economic significance of the solution bear any direct relationship to the amount of research effort being applied to obtain that solution? If it does, one might expect that we would have an answer on pre-determined animal sex before now. How much research is based on economics? Some of these questions are easier to answer in branches of agriculture other than livestock.

Extension

Extension must be careful to talk about the things which concern the farmer if they are to be usefully heard. Sometimes extension is saying one thing while the farmer is worrying about something else. We must be accurate in assessing his problems. Fall feeder sales have drawn attention to weaning weight. This is quite important

when assessing the market value of the feeder animal but to the farmer who raised it, his interest on a herd basis is pounds of calf per cow (or the average weight of all his calves).

In dairy farming we hear a great deal about total pounds of milk per cow and perhaps not enough about cost per pound. One is important if you are selling breeding stock, the other important if you are trying to make a living selling milk.

As I mentioned earlier we can get quite emotional looking at statistics of the number of B hogs that missed the Grade A weight range or were over-fat. Let's make sure the individual farmer had weighing facilities and didn't make more money on B's, than he did on his hogs that graded A.

Livestock farmers are up against it ... they are not mentally equipped to farm on a scale they are being forced into. It is said wisely "that we should get better before we get bigger." We are too late getting better and we must get bigger very soon. It is a challenge to all of us to utilize our resources of research, extension and communication to assist those who are as determined as we should be, to see these practical problems solved.

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THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE

BY THE
QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

Compiled by T. Pickup of the Information and Research Service,
Quebec Department of Agriculture and Colonization.

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PHOTOGRAPHS BY
OMER BEAUDOIN



Dr. J. B. Leblanc in one of his hayfields at Champlain, Champlain County.

RIGHT TIME TO HARVEST FORAGE

CUTTING A FORAGE crop at the right stage of maturity is important in obtaining a yield that is high in quality and satisfactory in size, report two Canada Department of Agriculture scientists.

Forage of the best quality is obtained from immature grasses when digestibility (the amount of forage intake digested by an animal) may be as high as 80 per cent, say Doctors D. P. Heaney and G. I. Pritchard, of the Animal Research Institute in Ottawa. Unfortunately, however, yields are very low at this point.

On the other hand, late season yields are high in quantity but low in quality, with a digestibility as low as 40 per cent.

Consequently, it is necessary to compromise between quality and size of yield when a crop is cut for maximum yields of digestible energy and protein.

Although forage yields can be estimated simply by examining the sward, it is more difficult to determine the quality of the crop.

A practical approach to the problem, say the researchers, is to assume that digestibility declines at a relatively steady rate of 0.5 per cent daily during the spring growing season of about 10 weeks.

Early in the season, forage yields increase at a faster rate than quality declines, while in late season the rate of decrease in quality is much greater than the rate of plant growth.

Maximum yields of nutrients occur somewhere in the middle of the growing season, usually in mid-June in the Ottawa area, report Heaney and Pritchard.

By estimating yield and with some idea of the rate of decline in quality, farmers in any area can calculate the best time to harvest their forage crops.

Early cutting may present some difficulty in curing, and wilting is necessary for ensiling. However, the improved hay quality and the reduction in the amount of supplementary grain needed for livestock usually more than compensate for spring growing season of about 10 weeks.

*From Farm News
No. 1081, Ottawa.*

DO FUNGICIDES AFFECT APPLE YIELDS?

Kentville researchers compare the effect of
four different spray schedules

by R. G. Ross*

THE LONG-TERM effect of different fungicides on apple yield, tree growth, fruit size, etc., has received little attention in studies on fungicides for the control of diseases. These factors assume importance now that the recommended fungicides all provide essentially complete control of diseases. Since 1959, a block of mature McIntosh apple trees at the CDA Research Station, Kentville, N.S., has been used to compare the effect of four different spray schedules on the performance of apple trees. It was particularly suitable for this purpose since data had been taken on the performance of each tree since planting and the spray program had always been the same for the entire orchard.

The various fungicides used with the concentration per 100 gallons of water for pre-cover and cover sprays were:

1. Captan (Captan 50W), 2 lb., 1.5 lb.
2. Dodine (Cyprex 65W), $\frac{3}{4}$ lb., $\frac{3}{4}$ lb.
3. Dichlone (Phygon XL), $\frac{1}{2}$ lb., $\frac{1}{4}$ lb.
4. PMA (Erad-phenyl mercury acetate, 10%), $\frac{1}{2}$ pint in pre-cover and captan, 1.5 lb. in cover applications.

Eight or nine sprays, usually consisting of five pre-cover and three or four cover sprays, were applied each year.

The accompanying table shows the average fruit yield of the apple trees for a five-year pre-treatment period, and the yields following the introduction of the four different fungicide programs. There were no significant differences between the plot yields for the pre-treatment period, whereas differences in yield were significant in each year of the test. It is quite obvious that

* Dr. Ross is Head of the Plant Pathology Section, CDA Research Station, Kentville, N.S.

Table 1

Yields of apple trees sprayed with different fungicides (pounds per tree)

	Average 1954-58 (pre- treatment)	1959	1960	1961	1962	% increase in yield 1959-62 over 1954-58
Dichlone	625	667	478	828	708	7%
PMA	683	875	486	1012	854	18%
Dodine	665	818	603	1113	899	31%
Captan	682	839	760	1190	1033	40%

the highest yields were obtained with captan, followed by dodine, PMA-captan, and dichlone. The average per cent increase in yield per tree for the four treatment years compared with the five-year pre-treatment period, for each fungicide was: captan 40%, dodine 31%, PMA-captan 18%, and dichlone 7%.

Following these differences in yields, we examined our data on tree growth, bloom, and fruit size to see if these factors were responsible. The fungicides had little effect on tree growth as measured by increase in trunk cross-section. Throughout the experiment most trees had a full bloom, although in 1961 and 1962, occasional trees in the dichlone plots had a light bloom. In general, the fungicides had little effect on bloom but there was a highly significant difference in fruit size every year. Apples sprayed with dichlone were almost identical in size to those sprayed with captan, whereas the apples from the PMA-captan plots were always larger. The comparative size of the dodine-sprayed apples varied from year to year. The larger apples with PMA indicates a thinning effect since fewer apples would be present on these trees. Workers in the United States have also obtained larger apples with mercury sprays. This thinning effect is not too important on mature trees but with young apple trees mercury sprays often cause serious reductions in yield. Apparently dichlone was detrimental to

the physiology of the trees. It produced apples the same size as those from the captan plots but there were fewer of them without the increase in size encountered with PMA.

We also took records on the amount of color on the apples from the various treatments but this did not vary between treatments. Appearance of attractiveness is probably as important as the amount of color present. The treatments containing captan produced the best fruit finish. Dichlone-sprayed apples were much less attractive with some roughness present. Dodine injured about three per cent of the apples in two years of the test but the conditions under which this injury occurred are not known.

All four fungicides have been extensively tested and used for apple scab control. We found that they vary in their protectant and eradicant or after-rain properties so that the comparative control obtained, particularly for early scab, depends somewhat on the timing of the applications in relation to apple scab infection periods. PMA is usually regarded as a poor protectant fungicide but in these tests it gave excellent control of early scab when applied in a

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Table 2

—	Captan	Dodine	Dichlone	PMA—captan
% increase in yield	40%	31%	7%	18%
Size of fruit	about same size as with dodine	—	fewer, same size as with captan	fewer with PMA but larger than with captan
Appearance of fruit	best finish	about 3% injury	rough, less attractive	—
Apple scab control				
(a) early	good control	good control	—	excellent
(b) late	fair control	good control	ineffective	—

regular spray schedule. Dodine was the most effective fungicide for scab control giving good control of both early and late scab. Captan was only fair for late scab control and dichlone was ineffective against this type of scab.

As a result of these fungicide tests it can be said that the yields of apple trees are definitely influenced by the fungicide schedule used. This factor should be considered by the apple grower when deciding on a spray schedule. The fungicide that gives the greatest yields should be used whenever possible. Of course, it is not always possible to use the same fungicide throughout the spray season. As stated before, the various fungicides have different

properties and advantages and these must be considered in choosing a spray program.

As with most investigations, this test leaves some pertinent questions unanswered. In Nova Scotia, dichlone is not normally used in the cover sprays. Is it detrimental to yields if used only in pre-cover applications? In this test dodine was used at a slightly higher dosage than is now recommended. Would yields with dodine at a lower dosage be equal to those obtained with captan? At the present time the entire orchard is being sprayed with captan to determine if there are any carry-over effects from the fungicide treatments.

FARROWING CRATES SAVE PIGLETS

Failing adequate protection, losses of young piglets are apt to cost the farmer dearly, points out Mr. M. A. Dionne of the Quebec Department of Agriculture and Colonization. Mr. Dionne estimates that about 70% of such losses occur during the week after farrowing and that most of them are due to crushing by the sow.

Income from raising hogs is directly proportional to the number of piglets saved, and it is reckoned that it takes five or six hogs to pay for the cost of rearing and feeding the litter. Hence, farrowing time must be considered as the most critical stage of the hog-raising cycle. This means that the care and attention given before and after the birth of piglets have a considerable influence on profits. The breeder has thus every reason to use all possible means to reduce losses and, if he can, to eliminate them altogether.

For some years past, the farrowing crate has been used to good advantage, especially in large piggeries. All those who have tried it agree that it does away almost entirely with the crushing of piglets by the sow. In addition, the farrowing or maternity crate makes supervision easier and saves space. The

crate comprises three spaces:

- 1) feeding and resting area for the sow;
- 2) suckling and resting area for the piglets;
- 3) area for droppings.

It is important that the sow be put into the crate a few days before she is expected to farrow so that she will have time to get used to her new surroundings.

Some breeders remove the sow from the crate when piglets are strong enough that the risk of their being crushed is practically over; other do not free the sow until weaning time. Some breeders find it advantageous to use the metal crate which are obtainable commercially. Those who would like to make crates themselves out of wood may obtain the necessary plans free of charge from the Farm Buildings Division, Department of Agriculture and Colonization, Parliament, Quebec. These plans show recommended dimensions and all details of construction, and include a list of materials required.

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QUEBEC HAS MOST DAIRY COWS

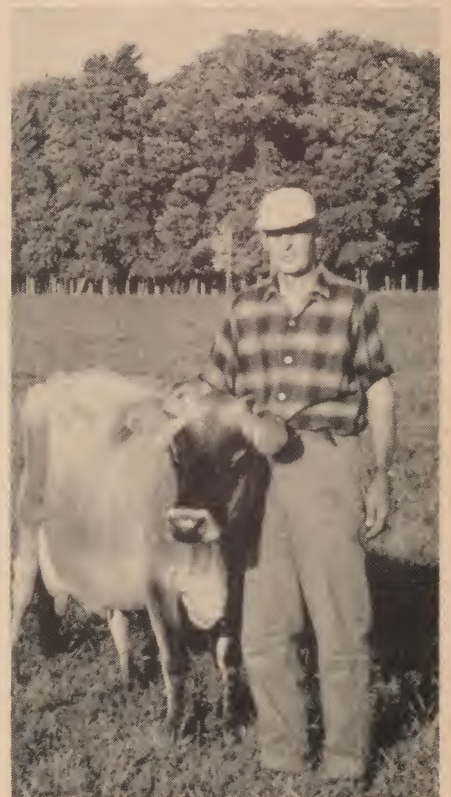
With just over one million cows, Quebec had more dairy cattle than any other province in Canada at the beginning of June 1963. This is revealed in an analysis of the state of Canada's dairy industry made by the Economics Division of the Canada Department of Agriculture.

Quebec took the lead in this respect in 1955 and now has nearly 100,000 more dairy cows than Ontario, the province with the next biggest dairy population. During the period 1957-1963, while the number of dairy cows in Canada decreased by 7%, Quebec was the only province to hold its own, with a slight decrease of only 0.6%. It was also the only one to show an increase last year. The Maritimes showed the most marked decline (28%), followed by the Prairies (14%), Ontario (7%), and British Columbia (1%).

In the Canadian dairy industry, it is significant that Quebec, with 40% of the 2.9 million cows on farms in Canada, is the only region where the number of animals in dairy herds has shown a tendency to increase.

Dairy production is certainly not the only answer to Quebec's agricultural problems but, for reasons connected with markets, climate, and land tenure, it is likely to remain her basic livestock production.

Mr. Ernest Yach with one of his Jersey cows at Clarendon in Pontiac County.





This watercourse at St-Eustache was dug with the aid of the Department of Agriculture and Colonization.

Ernest Mercier, Deputy Minister of Agriculture and Colonization, has outlined in this article a new assistance policy which will interest the Quebec farmer. Supplied by the Rural Engineering Service, Agricultural Hydraulics Division (Drainage Service) free of charge its aim is to improve municipal watercourses.

Improvement of municipal watercourses

IN ORDER TO ENSURE adequate drainage of riparian lands, the Department of Agriculture and Colonization provides assistance to municipal corporations for the construction and improvement of municipal watercourses.

The Department provides this assistance by supplying free of charge the technical help needed for the preparation of improvement projects, and by contributing financially to the construction and maintenance of watercourses.

General Remarks

This assistance policy is administered by the Agricultural Hydraulics Division in collaboration with county agronomes and the municipal corporations legally concerned.

The policy applies only to municipal watercourses, i.e., to those affecting a number of farmers. **Hence it does not include water furrows, intermediate ditches, line ditches, or any kind of drainage works of a purely private nature.**

Procedure

Farmers who wish to take advantage of this assistance policy should apply to their county agronome, who will

supply them with the necessary forms for requesting aid (D-1-21) and explain the procedure to be followed.

Role of the Agronome

The agronome must study the application, making sure that it is accompanied by a motion of approval passed by the municipal council concerned and that it concerns a project of general benefit and not a matter of private interest. He must also submit his report on form D-1-14, indicating the real purpose of the application, the total potential financial benefits to all the lands involved, and his recommendation or disapproval of the project as the case may be, in all cases taking into account the local agricultural situation and interest.

The agronome will submit the application accompanied by the municipal council's approval and his own report, in duplicate, to the Agricultural Hydraulics Division.

Role of the Agricultural Hydraulics Division

On receiving the aforesaid documents, the Agricultural Hydraulics Division will proceed to inspect and carry

out a survey of the watercourse and prepare a plan for its construction or improvement. The whole project will then be submitted for legislation to the municipal corporation which has jurisdiction over the watercourse.

Technical Assistance

The technical assistance which will be provided entirely free of charge by the Department consists of:

1. preparation of the plan for the improvement of the watercourse;
2. supplying the persons concerned and the municipal council with the technical information required to draw up the necessary by-laws;
3. direction and supervision of work for which the Agricultural Hydraulics Division assumes responsibility.

Financial Assistance

- A. In the case of small watercourses, the Department will pay the mu-

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municipal corporation concerned a grant amounting to 50% of the cost of the work as estimated by the Agricultural Hydraulics Division.

- B. In the case of larger watercourses, the Department undertakes to carry out, at a charge of \$200 per mile of watercourse, such works as digging, spreading of excavated material, dynamiting, felling and clearing of trees, removal and replacement of fences, etc., (but excluding bridges and culverts and other structures built over the watercourse). The electoral districts of Abitibi East, Abitibi West, Rouyn-Noranda, and Temiskaming, and areas designated as colonization regions benefit from a special policy whereby the Department carries out all the work at its own expense.
- C. In the case of watercourses which it has already excavated or improved under the terms of this policy, the Department will also undertake such works of maintenance as the Agricultural Hydraulics Division may consider necessary, if given the necessary right of way and a waiver of damages signed by at least two thirds of the persons affected. A charge of \$200 per mile of watercourse is made by the Department for carrying out this work.

Beneficiaries

Any municipal corporation acting in the name of a group of farmers who wish to improve a watercourse in accordance with plans drawn up or approved beforehand by the Agricultural Hydraulics Division.

Conditions

Applicants for assistance under this policy are required to:

1. submit an official application which has been duly approved by a resolution of the municipal council concerned;
2. pass the necessary by-laws concerning the watercourse;
3. accept, by means of a resolution, the Department's written undertaking of subsidization or assistance;
4. conform to the requirements of the said undertaking.

SAFETY ON THE FARM

It is estimated that about 50 tractors a year are destroyed by fire in Canada. These fires are caused by leakage of fuel, short circuits in the electrical system, sparks from the exhaust pipe, or the imprudence of filling the tank with gasoline while the engine is overheated or running. A machine as expensive and indispensable as a tractor deserves regular care and maintenance, insists Mr. Hal Wright of the Ontario Department of Agriculture, specialist in safety on the farm. Mr. Wright believes that it is a wise precaution to have a chemical fire-extinguisher in the tool-box of the tractor at all times.

The national safety league predicts that Canadian farmers will be victims of 120,000 accidents in the next 12 months. At this rate, there would be one accident to every four farm families in Canada. Farmers would be well advised to double their precautions to make sure that they will not be among the victims.

CONCENTRATES FOR HIGH MILK PRODUCTION

High-producing dairy cows may lose weight even on quality pasture if they are not fed a concentrate, observes Dr. D. M. Bowden, of the federal experimental farm at Agassiz, B.C.

In supplemental feeding tests begun at Agassiz in 1962, the most economical milk production was obtained when the amount of supplement maintained both body weight and milk yield, the researcher reports. A 15 per cent pro-

tein concentrate was used in the tests.

Two years ago some high-producing cows were fed two pounds of concentrate per day each, while some others were fed at a high rate of one pound of concentrate for every four pounds of milk produced (fat-corrected to four per cent).

The first group averaged 52 pounds daily of four per cent milk compared with 56 pounds for the other. However, the increase was expensive. The extra four pounds were worth about 20 cents but required 40 cents of concentrate to produce.

From the 1962 results researchers concluded that cows capable of yielding more than 50 pounds of four per cent milk daily on quality pasture required more than two pounds of concentrate daily for maximum production, although the high rate used in the test was economically unsound.

Last year the researchers used intermediate amounts, feeding two-fifths, three-fifths and four-fifths of a pound for every four pounds of milk produced. The smallest amount gave the most economical production of milk.

However, says Dr. Bowden, pasture conditions were unusually good in 1963 and the digestibility of the pasture could be expected to be higher than in seasons when moisture conditions are poor.

Meantime, researchers at Agassiz are to continue their investigations, using the intermediate levels of the concentrate to study the effect of seasonal pasture differences on requirements.

Mr. C. Huneault feeding "moulee" to the cows on his farm at Montebello in Papineau County.



Pastures used in both tests were predominantly orchard grass with some ladino clover. The concentrate mixture contained oats, barley, bran, rapeseed meal, salt and other minerals.

From Farm News No. 1081

QUEBEC FARMING CONTEST WINNER

Mr. Johnny Bergeron of Saint-Prime in the County of Roberval has won the gold medal in the professional farmers' class in this year's Provincial Agricultural Merit Competition. Scoring 914 out of a possible 1,000 points, Mr. Bergeron also earned a cash prize of \$500 and the title of Commander of the Order of Agricultural Merit. His closest rivals were Mr. Joseph Savard of Péribonca, Roberval, and Mr. E. Mayer of Béarn, Témiscamingue, who scored 904 and 901 points and won prizes of \$300 and \$200 respectively.

The leader amongst 24 contestants for silver medals was Mr. G. Fortin of Métabetchouan, Lake St. John.

WAR ON BARBERRY BUSHES

The common barberry bush is on the way to becoming just a memory in Ontario and Quebec.

Handsome as it may be in appearance, barberry is host to organisms that create races of stem rust that attack oat and other cereal crops. It has been estimated that oat crops in Ontario and, to a lesser extent, in Quebec, are damaged to the extent of some \$6 million annually from stem rust.

To check the advance of the disease and to give researchers a chance to develop new resistant oat varieties, a million dollar program has been launched to eradicate barberry in Ontario and Quebec.

The eradication program is being co-ordinated by Canada Department of Agriculture's Plant Protection Division.

The federal government pays half the shareable cost of the three-year program.

First shot in the war on barberry was fired recently when spray crews moved into the Merrickville, Ontario, area where a new and extremely dangerous race of stem rust had been found.

Among those on hand to inaugurate the program in Ontario were W. A. Stewart, provincial minister of agriculture; Dr. J. C. Woodward, associate director general of CDA's Research Branch; Dr. A. W. S. Hunter, director of CDA's Genetics and Plant Breeding Research Institute; H. G. Carmody, of CDA's Plant Protection Division; and representatives of the Ontario Soil and Crop Improvement Association.

For the next three years survey crews

will comb Ontario and Quebec, charting stands of barberry. Following on their heels will be trained crews equipped with sprayer trucks and portable spray-ers.

While the breeding of rust-resistant cereal varieties has been the main line of defence against the disease, new races of rust have been developing and there are virtually no new sources of resistance remaining to plant breeders at the moment.

Illustrative of the problem facing breeders is the fact that 13 new races of stem rust have appeared since 1946. Although not all have become widespread, they pose a continuing threat. Scientists believe that rust spores can drift to all parts of the country.

New virulent races of rust are being produced on barberry faster than resistant varieties can be developed but the eradication campaign will give plant breeders a chance to develop new cereal varieties that will retain their resistance longer.

Up to now, eradication of barberry in Eastern Canada has been attempted only on a local and intermittent scale, although the bush is successfully controlled in Western Canada.

From Farm News No. 1081

THE CARE OF YOUNG BEEF CATTLE

In the organization and management of a herd of beef cattle, there are certain important factors to be taken into account, such as, for example: the quality of the breeding animals, economical feeding and maintenance, etc.

Since bodily conformation is largely a matter of heredity, the owner should keep his best heifers for breeding purposes. This selection ought to be very rigorous, and should be restricted to the daughters of good cows. Other animals not considered suitable for keeping for breeding, should be fattened for slaughter.

Calves born in March or April are generally weaned at the end of October, or at about six months of age. At this stage of their development, young beef cattle are kept in stalls in the barn or, more usually, under a system of loose housing separate from the other animals. Since our winters are long and severe, calves brought in from pasture must be given all the care and attention demanded by their youth and immaturity. Thus, it is important that they be suitably housed in winter to protect them from wind and weather. They should also have access to an exercise yard and be provided with dry litter and an abundant supply of water. Outdoor water-troughs should be equipped with an electric water-heater during the winter.

The herd should be fed hay composed of legumes or a mixture of legumes and grasses; silage, if available, may be fed daily, as well as one or two pounds of meal (especially if the hay is not of very good quality).

In many cases, small bumps containing the larvae of botflies or warble flies will be seen to appear. When grubs have fully developed, such areas should be treated with a solution containing Derris dust, applied and rubbed vigorously into the animal's coat with a stiff brush so that the liquid penetrates to the skin and reaches the larvae. The treatment may be repeated if necessary. There are other products which are equally effective for this purpose, providing that the manufacturers' directions are carefully followed.

Dehorning is better done with an electric dehorner when the animals are young. Dehorned cattle are more docile, and less dangerous to one another and to those who tend them.

After having spent the winter more or less confined, young stock should be put out on pasture early in spring, because it is during the grazing season that beef cattle grow best and most cheaply.

It must always be borne in mind that the young animals retained today for breeding purposes will be the herd of tomorrow.

WEEKLY FOOD BILL — 1962

The average Canadian family spent \$23.07 per week for food in 1962. The D.B.S. figures are a result of a survey conducted in seven major cities. Averages ranged from \$20.61 for families in Edmonton to \$24.85 for families in Montreal.

About 29% of the family food dollar went for meat, poultry, and fish. Fruits and vegetables took 14%; bakery and cereal products 13%; dairy products 12%; fats and oils 4%; eggs 3%; frozen foods 1%; other foods for home consumption 12%. Food purchased and eaten away from home amounted to 12%.

This distribution differs only slightly from that recorded in a similar survey made in 1957. The most pronounced differences between the 1957 and 1962 distributions were in the proportions of food expenditure going to meat from 28.2% to 29.3%, and to fats and oils from 4.9% to 4.2%.

(From "Facts, Figures, Comment", Vol. 14, No. 19, published by the Meat Packers Council of Canada.)

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The Better Impulse

NEWS AND VIEWS OF THE
WOMEN'S INSTITUTES OF QUEBEC



FROM THE OFFICE

Note: It should have been mentioned with the picture of Mrs. Ivy Hatch (Woman of the Year) in the August issue, that she is the president of Stanstead North WI.

Also please note: All you need to address mail to the QWI Office is—Quebec Women's Institutes, Macdonald College. Do not put Montreal (they don't know us at all) and as Ste. Anne de Bellevue and Macdonald College each have their own post office, you don't need to put Ste. Anne de Bellevue either.

Many requests to purchase QWI pins come to the QWI Office. These you obtain from the Prov. Treasurer, Mrs. G. E. Cascadden, 36 Warren St., Lennoxville, Que. The plain pin is 75¢, with safety clasp \$1.35. QWI note-paper is also ordered from the QWI Office. Letterheads and short or long envelopes, all 1¢ each.

We have the QWI Histories at the Office at \$1.00 each—and well worth the price.

The Outlines for the coming year have been mailed to all convenors. If you wish extra copies, write the Office.

CITIZENSHIP CONVENORS

As usual a list of all branch and county convenors of Citizenship has been sent to the Dept. of Citizenship, Ottawa. Miss McKenzie informs us that last year she sent out sample copies of the magazine (Citizen), which they may have free, with request forms to fill in, and only half of the convenors answered. WHY?

OUR FAR AWAY SISTERS

The Country Women's Associations (CWA) of Australia

"There are six Country Women's Associations in the six self-governing States, with an overarching organization which meets every two years. In Queensland there are 498 branches, concerned chiefly with social welfare. Among other activities they have 200 seaside cottages for family holidays, administered by the CWA, as well as Hostels for expectant mothers near hospitals and Students' Hostels near government and secondary day schools, where tuition is free and no boarding

provided. There is also a club in every town for the use of country members. They raise and spend their own funds and have a Conference and a Leadership Course each year.

"All the branches contribute to the maintenance of the CWA magazine in Queensland, which before that had never paid for itself. It is run by a paid secretary.

"No branch is allowed to give more than a guinea a year to any outside organization and nothing at all to any organization with a paid organizer. For local needs a branch can give up to 50% of any sum."



SPINNING WHEEL, GIFT OF Q.W.I.

Visitors from Sarawak admire the old spinning wheel at the Homestead. Che Rugayah is Assistant Organizer of the Federated Women's Institutes of Sarawak and accompanied by her husband (a post graduate, Princeton University) was on a study tour of the U.S. and Canada. A chance to see the birthplace of the founder of the W.I. was much enjoyed. The 100 year old spinning wheel is the gift of the Quebec Women's Institutes and sits in front of the old stone fire-place on a handwoven rug (catalogne).

TWEEDSMUIR AND SALADA CONTESTS

A wire was received during convention from Mrs. H. G. Taylor, FWIC Secretary, who was at the national convention in Nova Scotia, to say the QWI had won the second prize in the Tweedsmuir contest for the painting by Mrs. J. Tinkler.

Prizes given provincially for the Tweedsmuir competitions were:

History — 1st Wakefield WI; 2nd Clarendon WI

Painting — 1st Mrs. J. Tinkler, Cavagnal WI; 2nd Mrs. S. Noble, Spooner Pond WI

Sampler — 1st Mrs. A. Duyvewaardt, Cavagnal WI; 2nd Mrs. A. J. Coddington, Spooner Pond WI

The Salada contest winners were:

Baby Set — 1st Mrs. A. Vallière, Val d'Or WI; 2nd Mrs. G. H. Holmes, Aylmer East WI; 3rd (tie) Mrs. R. Joyce, East Angus WI and Mrs. G. R. Sanders, Ste. Anne's WI; Honorable Mention: Mrs. Allan Little, Inverness WI; Mrs. C. T. Harris, Hemmingford WI; Mrs. G. Seary, Brownsburg WI; Mrs. Colin Campbell Black Cape WI; Mrs. E. Vogelsanger, Core WI.

Pillow Cases — 1st Mrs. M. D. Blue, Sawyerville WI; 2nd Mrs. D. Scott, Scotstown WI; 3rd Mrs. E. G. Prinn, Harwood WI; Honorable Mention — Mrs. G. D. Harvey, Stanbridge East WI; Mrs. H. Ramsay, Waterloo-Warden WI; Mrs. A. J. Coddington, Melbourne WI; Mrs. B. Enlow, Brownsburg WI; Mrs. R. Andrews, East Angus WI; Mrs. H. Pagé, Sutton WI; Mrs. D. Seaman, Sutton WI.

Sweater — 1st Mrs. M. Burbank, South Bolton; 2nd Mrs. T. E. Gilchrist, Melbourne Ridge WI; 3rd H. L. Wallace, Lennoxville WI

Rug — 1st Mrs. S. Sayer, Brompton Road WI; 2nd Mrs. S. Robinson, Beechgrove WI; 3rd Mrs. L. Tremblay, Shipton WI; Honorable Mention, Miss H. Graham, Aylmer East WI and Mrs. L. Bisson Malartic WI

Sampler — 1st Mrs. A. Duyvewaardt, Cavagnal WI; 2nd Mrs. P. Prakte, Dewittville; 3rd Mrs. Dewar Scott, Scotstown WI

The histories were judged by Prof. H. Morrison, Macdonald College; paintings by Miss B. Jacques and Miss F. Wren also of the College staff. The Tweedsmuir samplers and Salada entries by Miss Suzanne Auger, Dept. of Agriculture, Quebec, Handicrafts Div. Miss Auger said the pillow cases were the finest she had ever judged.

COUNTY PROJECTS "SUMMERTIME"

The lovely golden days of Canada's summer are a pleasure and a delight. Though summer may not be long, it is a time of beauty, relaxation, and enjoyment of special opportunities. The myriad lakes and rivers and ponds and "swimmin' holes" tempt many Canadians into boating, swimming or beach activities.

The families of Malartic, like other Canadians, enjoy their summers in camps and cottages, and in or on the water. Just 12 miles from the town lies the pretty Lake Maurier where some townspeople have summer cottages. Mrs. R. Avery, President of the Malartic Women's Institute learned that a vacant section of land on the lake shore was held by the Department of Lands and Forests. On investigation it was learned that the land could be leased, and visits and letters to the proper authorities quickly followed. The result was a ten year lease, at a nominal rent, and the Women's Institute has a campsite with a beach!

Considerable work was required to get the site in operation, with work being done by the members and their willing husbands and families. Birch trees grow on the lot to provide beauty and shade. A spring provides good drinking water. There is sufficient space for tents, and members may camp on the site for their holidays, as well as enjoy the beach throughout the summer. The beach is for the use of Women's Institute members and their families, with each member paying a small annual fee for its upkeep. Members are welcome to use the beach at any time, and are expected to keep the site in good condition. A happy social occasion, with games for adults as well as for the children, and a Fish Pond, provided the Official Opening of the W.I. Beach.

Summers will be even more wonderful now!

BRANCH PROJECTS of special interest

MALARTIC organized and held its first Exposition, which will become an annual event. Eight booths were set



by Norma E. Holmes

Dear Min:

Had a little excitement here lately. You know Charlie, our hired man. Well, the other day the bull came out of the door along with the cows (of course he should have been tied up) and Charlie got in front and tried to shoo him back in. The bull just picked him up on his horns and tossed him aside and went on about his business. When Charlie came to he had two cracked ribs, but he insists the bull isn't ugly. I wouldn't know. I don't know if there are any ugly thoughts inside a bull's brain. I know sometimes the outside looks pretty ugly.

Anyhow, father thinks Charlie has earned some of grandma's root beer and Charlie is quite happy about it.

Father, who is a teetotaller, insists it isn't intoxicating — how could it be, just made of innocent roots and berries right here on the farm. But I don't know — when the corks pop out of the bottles . . . Father says it's just gravity.

This morning Wendy said to her father, "You're beautiful". Of course he translated it to 'handsome' and decided she was a pretty smart girl for two. I didn't tell him she said the same thing to the old pig yesterday. I hope she never says it to Charlie. It would be an awful let-down for John. Wouldn't it be wonderful to be able to see into a child's mind?

As ever,

Eloise

out, with categories of Culinary Art, Embroidery, Hats, Knickknacks, Knitting, Plants and Flowers, Sewing and Weaving. Three prizes were awarded in each booth. Many exhibits were on display. Some members brought several articles, but only one exhibit in each category was judged for each member — the other entries just added colour and variety to the exhibition. A door prize and three other prizes were donated by local merchants. Tea, coffee and pastry were sold at every session, and helped to make the expo a real success. Some of the food items were donated, some sold on commission. Another exposition is planned for next year.

ABBOTSFORD sponsored a Summer Hobby and Antique Show. The one-day show gave the children of the community the opportunity to display, and to explain their interesting and numerous hobbies. Adults brought favourite antiques which were most attractive. Entertainment was provided by a group of eight girls who sang English and

French folk songs, and Beethoven's World Hymn. These girls meet weekly with Mrs. Marshall, for singing. Refreshments were served, and the Hobby Show was a real success.

MATAGAMI — A very warm WELCOME to our newest branch, with best wishes for many happy years in the W.I.

Many publicity conveners report attendance at the special unveiling ceremony at Dunham, by many delighted members who greatly enjoyed the occasion.

Nearly all branches state that the business of the Provincial Convention was well reported by the delegates and all members are now well aware of Provincial business, projects and resolutions.

Summer meetings are held by most branches as outdoor occasions or trips, picnics, weiner roasts, games days for children, with frequent entertaining of other branches, or neighbours and friends.

THE MONTH WITH THE W.I.

ABITIBI-EAST: MATAGAMI heard Mrs. J. Wetzen speak on the Honey Bee; successful Bake Sale held.

CHATEAUGUAY - HUNTINGDON: DEWITTVILLE entertained DUNDEE and FRANKLIN CENTRE at a summer meeting; a talk on "Utopia" by Mrs. Bulow; hints on citizenship; Salada Contest prize presented to Mrs. Prakte; informal quiz. Successful summer fair held. FRANKLIN CENTRE worked on articles for two booths they will have at Havelock Fair. HEMMINGFORD sent a few magazines to NWT WI's. HUNTINGDON heard informative address by Mrs. E. Wood, on St. Philip's Indian School, Fort George, Que.; display of Indian and Eskimo carvings; quiz on authors; handwork exhibited; loans made to two Huntingdon High School graduates to assist them in Teaching, and Home Economics course at Macdonald College; prize money donated to Huntingdon Agriculture Fair, and to School Fair. ORMSTOWN entertained AUBREY-RIVERFIELD.

COMPTON: BROOKBURY filled 4 Share-a-Loaf cards; started money envelope for invalid friend. BURY entertained CANTERBURY. CANTERBURY celebrated its 50th anniversary, and honoured three charter members, Mrs. F. G. Bennett, Mrs. Kate Sherman and Mrs. Cora Asher; worked on exhibits for Cookshire Fair. EAST CLIFTON visited the Compton County Museum; held a penny auction.

GASPE: DOUGLASTOWN participated in Children's Day during County Fiesta; mystery parcels auctioned to raise funds; received membership pins. GASPE heard Dr. Everitt Coffin speak on The Use of Pills; suggestions for care of an invalid given; articles read on Farm Planning; what TV is doing to our children; and on Life Expectancy.

GATINEAU: AYLMEER EAST enjoyed an address by Mrs. H. Ellard; entertained Mrs. H. M. Tattersall, of Devon, England, who spoke on English W.I. activities; articles for entry in Ottawa Fair were on display. EARD-

LEY members toured the local Co-Operative Creamery, and the Quyon Milling Co., courtesy of Mr. L. Balharrie; roll call named flowers or shrubs.

MISSISQUOI: COWANSVILLE held their meeting at a member's summer cottage; heard talk on antibiotics; roll call named Fathers of Confederation and told something about them; surprise package sold to raise funds; visited Brome County Historical Museum. DUNHAM enjoyed reading letters of congratulations on the success of the Memorial Plaque Ceremony, from other W.I. Branches; articles read on The Work of the Institutes, The Value of Aspirin, and on Army Worms; donated to County Association; roll call was a vegetable corsage with a prize for the best.

QUEBEC: VALCARTIER planned for Barbecue-Picnic, and for Dance on Labour Day.

ROUVILLE: ABBOTSFORD toured Canadian Celanese Plant at Drummondville; took a field trip to Dennison Manufacturing Company, with older children of the community invited to share the trip; demonstration of Flower Arrangements by Mr. Menard, florist of Granby.

RICHMOND: CLEVELAND held their meeting at the Wales Home; the matron, Mrs. Armstrong was first president of Cleveland, 45 years ago; many guests present who were presented with a corsage and gift. DENISON MILLS auctioned a mystery parcel. GORE held visitor's day with guests present from Melbourne Ridge, and Spooner Pond; learned helpful hints on removal of stains; contest on advertisements in magazines; apron contest. MELBOURNE RIDGE operated booth serving hot meals at Richmond Fair; toured local industry. RICHMOND YOUNG WOMEN catered to a wedding; served lunch at an Auction Sale. RICHMOND HILL brought articles to sell — proceeds to Pennies for Friendship; rummage sale held, proceeds to Cancer Fund; baby quilt made and sold. SPOONER POND honoured Mrs. F.

Noble, for her 2nd Prize Painting in Tweedsmuir Contest.

SHEFFORD: GRANBY HILL made plans to improve beauty of local area. GRANBY WEST conducted quiz on the W.I. WATERLOO - WARDEN worked on plans for school fair.

SHERBROOKE: ASCOT had demonstration of Cuisiniere Method of teaching Arithmetic by a teacher member. BELVIDERE knit socks for welfare society; donated to School Fair. LENNOXVILLE visited Home for the Aged for a social hour, and served refreshments. MILBY catered for a wedding.

STANSTEAD: BEEBE's Miss V. Moranville spoke on C.K.T.S., Sherbrooke; she also arranged W.I. Radio Broadcast on W.I.K.E., Newport, Vermont, with guest speaker Senator James Oakes of Battleboro, Vt.; branch heard talk on Hypnotism and its use in Medicine. WAY'S MILLS had Mrs. R. Cook, teacher, as guest speaker; roll call gave ideas on preparation of your child for school; gift presented to Mrs. Aldrich who is leaving the community; articles brought for WI County Sales table at Ayer's Cliff Fair.



Mrs. Mildred Rudd (right) received a Life Membership at a recent meeting of Stanstead North. Mrs. Irene Johnson presented the pin and certificate.



COLLEGE PAGE

OCTOBER AT MACDONALD :

There's hardly a more pleasant month at Macdonald than October. With football games, the reunion weekend, Thanksgiving and the bright colour of a Canadian autumn, what more could one ask for.

This year, more students than ever before are registered in the various courses offered at Macdonald. While there are many young people who are fortunate enough to continue their education, one can't help but wonder how many others should be at University, those who don't realize that education is the most important asset for living in the next fifty years.

Because of the space limitations, there are always those who, because they don't apply until the last minute, are refused admission and are forced to spend a year away from studying. For those, all that can be said is to try again next year. And for those students who have just recently joined the Clan Macdonald, we bid them welcome.

ONTARIO JUNIOR FARMER VISIT

In August, an enthusiastic group of Ontario Junior Farmers visited the college. These 42 young men and women, selected from all parts of Ontario, were on a week's tour of points of interest in Quebec.

Dr. H. G. Dion, Dean of Agriculture, welcomed the visitors to the campus.

MISS FINDLAY LECTURER IN FOODS

The School of Household Science is happy to welcome Miss Marilyn E. Findlay as a Lecturer in Foods. As a graduate of McGill University, Miss Findlay is known to many at Macdonald College. She is a Montrealer who



obtained her High School Education at the Mount Royal High School.

Miss Findlay was in the teaching option in the fourth year of the B. Sc. (H.Ec.) course and since graduation has taught at the Rosemont High School. She will be replacing Mrs. Marion

Zarkadas who has moved to Edmonton.

BILINGUAL COURSE FOR FLORISTS

A six day course in basic floral design was held at Macdonald College in August. Twenty-four people took part in this course, which was bilingual. Macdonald College provided the facilities of classrooms, storage and residences.

Prof. Murray, Chairman of Horticulture, was very pleased with the enthusiasm of the group. This is the second year a course of this type has been available.

COLLEGE GUESTS

Mr. E. F. Iton, plant pathologist of the Crop Protection Division, Regional Research Centre, University of the West Indies, St. Augustine, Trinidad, spent August 18 and 19 visiting in the Plant Pathology Department at Macdonald College.

Mr. Iton has been on study leave from the West Indies for several months. He spent most of his time at the U.S. Department of Agriculture at Beltsville, Md.

He was interested in discussing approaches to research problems and also the organization and financing of Plant Pathology research at Macdonald College.

Successful Feeders across Canada choose **MIRACLE**



1. Emeraldale Citation Comet

2. Spring Hedge Claudia Citation

3. Fradol Supreme Max



EMERALDALE CITATION COMET:—1st prize Junior Bull Calf, 1963 R.W.F., 1st prize C.N.E., 1st prize Peel B & W Day-nominated all-Canadian for "Miracle" feeder A. H. McKane, Georgetown, Ontario.

SPRING HEDGE CLAUDIA CITATION:—2nd prize 2 year old in milk 1963 R.W.F., 5th prize in dry class of 41 at C.N.E.—nominated all-Canadian for Harry Moore, "Miracle" feeder from Terra Cotta, Ontario.

FRADOL SUPREME MAX:—3rd prize 2 year old bull 1963 R.W.F., 3rd prize C.N.E. and Grand Champion at Peel B & W—nominated all-Canadian for Fradol Farms Ltd., another user of "Miracle" Feeds from Brampton, Ontario.

DR. ANDREEV VISITS MACDONALD

Dr. Andreev is interested in plant diseases but mainly in rusts of wheat. Before visiting Macdonald College for two days, Dr. Andreev had spent several weeks of his six months tour in Western Canada. Dr. Andreev visited the Plant Pathology Department at Macdonald; Dr. Sackston gladly showed Dr. Andreev the work he is doing in the study of rusts. Dr. Sackston first met Dr. Andreev in Moscow when he was on a similar tour.

RURAL SOCIOLOGICAL SOCIETY

Rural sociologists from Rome to California spent a week at Macdonald at the end of August. The occasion was the annual North American meetings of the Rural Sociological Society. Nearly 350 men, women and children journeyed many miles to attend the meetings and to present technical paper. The theme of the conference, "Human Resource Development", was referred to many times by the keynote speakers of the session, Mr. A. T. Davidson, Director of A.R.D.A., Ottawa and Mr. A. T. Mace, Director of the Rural Areas Development program of the U.S. government.

Several Canadians were among those presenting papers during the meetings. In addition, several other Canadians, including a few farmers took the opportunity to sit in on some of the discussions. Macdonald College was pleased that this important group would choose the campus as the site of their annual meeting. Next year the group will meet in Chicago.

How to plan a kitchen

Continued from page 6

flict with the use of appliances or cabinets.

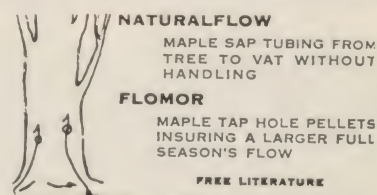
Another architectural feature is the number and placement of windows. The house plan of course will determine the amount of outside wall available for windows. It is generally recommended to have as many windows as possible without reducing the required amount of wall cabinets. The window area should equal about 15 to 20% of the floor area of the room.

The placement of the sink in relation to a window is an individual preference. Many people prefer the sink under a window. At least one stretch of work surface should be directly lighted by a window. Windows above the stove are not recommended for

reasons of safety and ease in housekeeping.

In planning a kitchen there must be sufficient wall space for the installation of appliances and all the necessary cabinets and counters. Jogs or projections in the walls should be avoided.

On the surface it may look as if almost anyone should be able to put a good kitchen together without much planning. However, anyone who has looked into the matter knows that this apparent simplicity is an illusion. The kitchen is an area where much time-consuming work is done. The work areas of a kitchen deserve as careful planning as those of a factory. But planning from the efficiency standpoint is not enough. By means of its furnishing and decoration, the kitchen must also be made a harmonious and integral part of the home.



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By **HARRY LORAYNE**

Let me explain! I don't care how poorly organized your mental powers are today — how difficult it is for you to concentrate . . . how bad your memory may be . . . how much a prisoner you are of crippling mental habits . . . how long it takes you each morning to get your mind going with adding-machine speed and certainty! **I BELIEVE THAT YOUR MIND IS WORKING TODAY AT ONLY 5% TO 10% OF ITS TRUE POWER — SIMPLY BECAUSE YOU DON'T KNOW THE RIGHT WAY TO FEED IT DIRECTIONS!**

Simply because you don't know the right way to feed your mind problems — so clearly and logically that those problems half-solve themselves before you even touch them!

Simply because you don't know the right way to feed your mind facts, figures and names and faces — so they burn themselves into that mind in such picture-form that you remember them forever!

Simply because you don't know the right way to feed your mind a **FULL CHARGE OF ENTHUSIASM** — so that it revs up instantly every morning . . . so that it operates at full power, not for just a few brief minutes each day, **BUT FOR AS MUCH AS 8 TO 10 FULL HOURS AT A STRETCH!**

Mind Power Is A Trick! I'll Teach It To You In One Weekend!

Yes! Problem-solving is a trick! Concentration is a trick! Memory is a trick! Habit-breaking is a trick! And, above all, generating the will power that means success **IS A TRICK!** Mind power can be made to order—you don't have to be born with it! The secret of a fast-acting, full-power, **THINKING MACHINE MIND** is as simple as tying your shoelace! And I'm willing to prove it to you without your risking a penny! **Here's how!**

All I ask from you is this. Let me send you—at my risk—one of the most fascinating books you have ever read. When this book arrives, set aside a few moments each day from the following weekend. Glance through just one chapter. And get ready for one of the most thrilling weekends of accomplishment in your entire life!

The Very First Hour After You Pick Up This Book, You Will Perform A Feat Of Mind Power That Will Astound Your Friends!

What you are going to do in that very first hour you receive the book, is this. Turn to page 144. Read three short pages — no more! And then, put down the book. Review in your own mind the one simple secret I've shown you—how to feed facts into your mind so that they stay there — permanently — as long as you wish!

Then put this simple trick to work for you — that very same hour!

Call in your family or friends. Ask them to make a list of any **TWELVE** facts, names or objects they wish, as fast as they wish. Have them write down the list so they won't forget it! But, as they give you each fact, **YOU** are going to perform a simple mental trick on that fact, that will burn it into your mind, **IN PERFECT ORDER**, as long as you wish!

And then — **INSTANTLY AND AUTOMATICALLY**—you are going to repeat that list, backwards and forwards, in perfect order, exactly as if you were reading that list in your friend's hand! And you are going to have one of the most exciting moments of your life, as you watch the expression on those people's faces as you reel off those facts as though they were flashing on a screen on the inside of your memory!

Thrilling? Yes! But also one of the most profitable secrets you will ever learn. For that list of twelve facts can just as easily be an appointment schedule — with each appointment flashing automatically into your mind at just the right time and place that you need it! Or a shopping list — or the outline of a speech — or a sales presentation — or the highlights of an important article — or a list of things that have to be done in perfect order!

Any one of them — they flash into your mind automatically, as though you pressed a button! And this astonishing mental gift — which will serve you every day for the rest of your life — is yours from the very first hour that you pick up this book!

And yet it's only the beginning!

Which Areas Of Your Mind Do You Want To Strengthen In A Single Weekend?

**Concentration, Will-Power,
Self-Confidence,
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Yes! From this moment on, in less than one thrilling hour a day, you begin testing the wonder-working techniques of Automatic Organization on every untrained corner of your mind! You begin breaking through mental barriers—mental limitations that have been blocking you for years!

You begin tapping the buried powers of your own mind . . . powers that you have glimpsed before in brief flashes . . . now brought to the surface — organized with simple formulas to double their potency — and placed forever at your beck and call ready to do to work for you at the blink of an eyelash!

For example —

DO YOU WANT TO DEVELOP "STEEL-SHUTTER CONCENTRATION" — OVERNIGHT?

Then turn to page 85 . . . master one simple exercise . . . and thrill to your ability to absorb huge amounts of information — easily and swiftly — even in a room filled with half a dozen howling children!

DO YOU WANT TO DEVELOP "X-RAY EYES"—POWERS OF OBSERVATION THAT AMAZE YOUR FRIENDS?

Then turn to page 136 . . . play three fascinating games . . . and then startle your friends, time and time again, by your ability to spot revealing details — put together hidden pieces of evidence — that they never even dreamed were there at all!

DO YOU WANT TO SEE HOW EASY IT IS TO REPLACE BAD HABITS WITH HABITS YOU CAN BE PROUD OF?

Then get ready for the revelation of your life on page 103 . . . that replaces agony with fun . . . that actually lets your bad habits break themselves without your hardly touching your will power.

YES! AND DO YOU WANT TO GENERATE ENTHUSIASM . . . FRIENDLINESS . . . PERSONALITY AT AN INSTANT COMMAND?

Then read every word starting on page 165! Learn how to overcome shyness and fear, automatically . . . make anyone like you . . . dissolve opposition with as little as a single word . . . earn both trust and respect from everyone you meet — and keep them — for good!

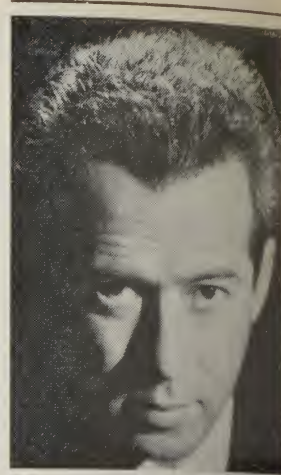
Read It For Ten Days — Entirely At Our Risk!

And this still is just the beginning!

What Harry Lorayne has described to you on this page is just a small sampling of the information packed into his amazing new book, **SECRETS OF MIND POWER** — now available only through this article!

Here at last is a practical, fascinating, easy-to-read book on improving the powers of your mind that **really works!** Its author, Harry Lorayne, has been called by experts "the man with the most phenomenal memory in the world!" He has already shown over 250,000 men and women, all over America, how they can achieve startling improvements in their memories overnight, with just a few minutes work!

But this fabulous **Push-Button Memory Technique** is only one small part of Harry Lorayne's great new book! Here — in addition to Memory — are complete "Push-Button Sections" on Observation, Concentration, Enthusiasm, Will-Power, Idea-Creating, Rapid-Learning, Time-Saving,



Clear-Thinking, Personality, Friend-Making, Public-Speaking, Worry-Control, Conquest of Fear, and many more!

Yes! Here are dozens of simple techniques that enable you to overcome crippling emotions, and keep your thoughts headed straight for each goal! Showing you how to think clearly and effectively in any situation — make decisions without agonizing delays — learn vital facts and figures at a glance — work at full mental power, all day long, for weeks and even months on end!

Here are tested, and proven "Thought-Stimulators," that streamline your mind — develop your creative imagination — increase your daily output — help you make time for everything you have to do!

Here are "Confidence-Generators," that let you laugh off worries and fears — make your own good luck — keep other people from taking advantage of you — turn bad breaks into opportunities — yes, even sharpen your sense of humor and improve your ability to speak well, whether in private conversation or before a crowd of hundreds!

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